



PTO/SB/08a (10-07)

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<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)  Sheet 1 of 5			<b>Complete if Known</b>	
			Application Number	10/522,948
			Filing Date	November 3, 2005
			First Named Inventor	Jie Hong Di
			Art Unit	1616
			Examiner Name	Courtney A. Brown
			Attorney Docket Number	101547.55778US

U.S. PATENT DOCUMENTS						
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)				
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FOREIGN PATENT DOCUMENTS							
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

NON PATENT LITERATURE DOCUMENTS			
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	C1	Reports of Cookson and Conaforth of Lincoln University made to Summit Quinphos (NZ) Limited.	
	C2	CAM de Klein and R.S.P. van Logtestijn - Denitrification and N2O emission from urine-affected grassland soil. Plant and Soil 163: 235-242, 1994.	
	C3	S.F. Ledgard, R.M. Monaghan and C.A.M. de Klein - Fast-Tracking Research on Nitrogen Model Development	
	C4	H.J. Di, K.C. Cameron, S. Moore and N.P. Smith - Nitrate leaching from dairy shed effluent and ammonium fertilizer applied to a free-draining pasture soil under spray or flood irrigation. NZ J. Ag. R 41:263-270, 1998.	
	C5	G.L. Velthof, O. Oenemo, R. Postma and M.L. van Beusichem - Effects of w e and amount of applied nitrogen fertilizer on nitrous oxide fluxes from intensively managed grassland. Nutrient Cycling In Agroecosystems 46: 257-267, 1997.	

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		Examiner Name	Courtney A. Brown		
Sheet	2	of	5	Attorney Docket Number	101547.55778US

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	C6	<b>Cookson and Comforth</b> - Dicyandiamide slows nitrification in dairy cattle urine patches: effects on soil solution composition, soil pH and pasture yield. <i>Soil Biology &amp; Biochemistry</i> 34 (2002) 1461-1465.	
	C7	<b>H j. Di and K.C. Cameron</b> - The use of a nitrification inhibitor, dicyandiamide (DCD), to decrease nitrate leaching and nitrous oxide emissions in a simulated grazed and irrigated grassland. <i>Soil Use and Management</i> (2002) 18, 395-403.	
	C8	<b>Williamson et al</b> "Reducing nitrogen leaching from dairy farm effluent - irrigated pasture using dicyandiamide: a lysimeter study" - <i>Agriculture, Ecosystems and Environment</i> 69 (1998) 81-88.	
	C9	<b>Williamson and Jarvis</b> - Effect of Dicyandiamide on Nitrous Oxide Flux following Return of Animal Excreta to Grassland - <i>Soil Biol. Biochem.</i> Vol. 29. No. 9/10. pp. 1575-1578, 1997.	
	C10	<b>Anne Lee</b> - Lincoln trials into leaching of nitrogen - <i>Dairy Exporter</i>	
	C11	<b>Anne Lee</b> - Lysimeter trial goes underground - <i>Dairy Exporter</i>	
	C12	<b>Sumitomo Chemical Co. Ltd</b> - <b>New Zealand Patent No.161791</b> - New Fertilizer Composition	
	C13	<b>Rao and Popham</b> - Urea placement and nitrification inhibitor effects on growth and nitrogen accumulation by no-fill winter wheat. <i>Crop Science, Vo.39, Issue 4, pp. 1115-1119, received at Grasslands</i>	
	C14	<b>F.E. Below and L.E. Gentry</b> - Nitrogen Source Influences Nutrient Uptake. <i>Better Crops, Spring 1988</i>	
	C15	<b>S.F. Ledgard, C.A.M. de Klein, J.R. Crush and B.S. Thorrold</b> - Dairy farming, nitrogen losses and nitrate-sensitive areas. <i>Proceedings of the New Zealand Society of Animal Production</i> 60: 256-260	

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	C16	R.A. Carran, P Roger Ball, P.W. Theobald and M.E.G. Collins - Soil nitrogen balances in urine-affected areas under two moisture regimes in Southland. <i>New Zealand Journal of Experimental Agriculture</i> , 1982, Vol. 10: 377-381	
	C17	Andrea Pearson, Crop & Food Research – Winter Nitrate Leaching from Maize and Sweetcorn Paddocks	
	C18	S.F. Ledgard - Nitrogen Losses from NZ Dairy Farms	
	C19	Kim Stevenson, Petrochem - Acidification of Soils following Fertiliser Application	
	C20	M.P. Germann-Bauer and A. Amberger - Degradation of the nitrification inhibitor 1-amidino-2-thiourea in soils, and its action in Nitrosomonas pure culture and soil incubation experiments. <i>Fertilizer Research</i> 19: 13-19, 1989	
	C21	G.S. Rajendram, S.F. Ledgard, R. Monaghan, J.W. Penno, M.S. Sprosen and L. Ouyang - Effect of Rate of Nitrogen Fertiliser on Cation and Anion Leaching under Intensively Grazed Dairy Pasture.	
	C22	Article for N Factor - Effect of Nitrogen Fertiliser on Leaching of Nutrients	
	C23	Is it worth adding a nitrogen stabilizer? – <i>Arable Farming</i> , February 1986	
	C24	R.J. Goos and B.E. Johnson - Effect of ammonium thiosulfate and dicyandiamide on residual ammonium in fertilizer bands. <i>Commun. In Soil Sci. Plant Anal.</i> , 23 (9-10), 1105-1117 (1992)	
	C25	H. Santruckova and M. Simek - Effect of soil CO2 concentration on microbial biomass. <i>Bil Fertil Soils</i> (1997) 25: 269-273	

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	C26	I.P. McTaggart, H. Clayton, J. Parker, L. Swan and K.A. Smith - Nitrous oxide emissions from grassland and spring barley, following N fertilizer application with and without nitrification inhibitors. <i>Biol Fertil Soils</i> (1997) 25: 261-268	
	C27	P.A. Joseph and R. Prasad - The effect of dicyandimide and neem cake on the nitrification of urea-derived ammonium under field conditions. <i>Blot Fertil Soils</i> (1993) 15: 149-152	
	C28	J.J. Schroder, L. ten Holte, H. van Keulen and J.H.A.M. Steenvoorden - Effects of nitrification inhibitors and time and rate of slurry and fertilizer N application on silage maize yield and losses to the environment. <i>Fertilizer Research</i> 34: 267-277, 1993	
	C29	D.R. Timmons - Nitrate Leaching as Influenced by Water Application Level and Nitrification Inhibitors. <i>J. Environ. Qual.</i> , Vol.13, No.2, 1984	
	C30	A. Amberger - Research on Dicyandiamide as a Nitrification Inhibitor and Future Outlook. <i>Commun. In Soil Sci. Plant Anal.</i> , 20 (19&20), 1933-1955 (1989).	
	C31	M.A. Turner and A.N. MacGregor - An evaluation of 'Terazole' as a nitrifide for improving the efficiency of use of nitrogenous fertilizers on pasture. <i>NZ Journal of Agricultural Research</i> 21 (1978): 39-45	
	C32	S.N. Sharma and R. Kumar - Effects of dicyandiamide (DCD) blended with urea on growth, yield and nutrient uptake of wheat. <i>Journal of Agricultural Science. Cambridge</i> (1998), 131. 389-394	
	C33	A.R. Mosier, J.M. Duxbury, JR. Freney, O. Heinemeyer and K. Minami - Nitrous oxide emissions from agricultural fields: Assessment, measurement and mitigation. <i>Plant and Soil</i> 181: 95-108, 1996	
	C34	R. Merino, J.M. Estavillo, G. Besga, M. Pinto and C. Conzalez-murua - Nitrification and denitrification derived N <sub>2</sub> O production from a grassland soil under application of DCD and Actilith F2. <i>Nutrient Cycling in Agroecosystems</i> 60: 9-14, 2001	
	C35	D.M. Davies and P.K.J. Williams - The Effect of the Nitrification Inhibitor Dicyandiamide on Nitrate Leaching and Ammonia Volatilization: A U.K. Nitrate Sensitive Areas Perspective. <i>Journal of Environmental Management</i> (1995) 45, 264-272	

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	C36	M.K. Abbasi and W.A. Adams -Estimation of simultaneous nitrification and denitrification in grassland soil associated with urea-N using 15N and nitrification inhibitor. <i>Bio Fertil Soils</i> (2000) 31: 38-44	
	C37	New Zealand Patent Specification No.511606 - Summit-Quinphos (NZ) Limited - Fertiliser Compositions, published at IPONZ on 22 November 2002	
	C38	DIDIN - Nitrogen Inhibitor - article NZ Agrichemical Manual 1998/99 on Soil Additives and Conditioners	
	C39	First Amended Notice of Opposition to Grant of Patent (Section 21), Patent Act 1953 (three (3) pages)	
	C40	Ravensdown Fertiliser Co-Operative Ltd. & Lincoln University (applicants) -vs- Balance Agri-nutrients Ltd. (opponent), Pleading, Evidence and Prior Art Index (four (4) pages)	

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